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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/574,520	01/23/2007	Riccardo Bigolin	048790/310101	6981

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ALSTON & BIRD LLP
BANK OF AMERICA PLAZA
101 SOUTH TRYON STREET, SUITE 4000
CHARLOTTE, NC 28280-4000

EXAMINER

SIMONE, CATHERINE A

ART UNIT	PAPER NUMBER
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1794

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/574,520	Applicant(s) BIGOLIN, RICCARDO	
	Examiner Catherine Simone	Art Unit 1794	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 5-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Withdrawn Rejections

1. The 35 U.S.C. 102(b) rejection of claims 1, 2, 5, 6, 8, 10-13 and 21-23 as being anticipated by Yates of record in the previous Office Action mailed 12/12/2007 on pages 2-5 has been withdrawn due to the Applicant's amendment filed 4/14/2008.
2. The 35 U.S.C. 103(a) rejection of claim 3 over Yates in view of Yu of record in the previous Office Action mailed 12/12/2007 on pages 5-6 has been withdrawn due to the Applicant's amendment filed 4/14/2008.
3. The 35 U.S.C. 103(a) rejection of claim 4 over Yates in view of Marchello of record in the previous Office Action mailed 12/12/2007 on page 6 has been withdrawn due to the Applicant's amendment filed 4/14/2008.
4. The 35 U.S.C. 103(a) rejections of claims 7, 9, 24 and 25 over Yates of record in the previous Office Action mailed 12/12/2007 on pages 6-8 have been withdrawn due to the Applicant's amendment filed 4/14/2008.
5. The 35 U.S.C. 103(a) rejection of claims 14-18 and 26 over Yates in view of Bigolin of record in the previous Office Action mailed 12/12/2007 on page 8 has been withdrawn due to the Applicant's amendment filed 4/14/2008.
6. The 35 U.S.C. 103(a) rejection of claims 19-20 over Yates in view of Mesinger et al. of record in the previous Office Action mailed 12/12/2007 on page 9 has been withdrawn due to the Applicant's amendment filed 4/14/2008.

Claim Rejections - 35 USC § 112

7. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

8. Claims 1-3 and 5-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

9. The new recitation “such that the insert directly interacts with the frame” in claim 1 is deemed new matter. Applicant points to pages 5-6 of the Specification for providing support for this new recitation, however, there is no clear support found in the Specification, particularly at pages 5-6, by the Examiner. The Specification, as originally filed, does not provide clear support for the recitation “such that the insert directly interacts with the frame”, as now recited in claim 1. Thus, this new recitation is deemed new matter.

10. Additionally, the recitation “said direct interaction between said insert and said frame comprises deformation of the insert” in new claim 27 is deemed new matter. Again, Applicant points to pages 5-6 of the Specification for providing support for this new recitation, however, there is no clear support found in the Specification by the Examiner, particularly at pages 5-6. The Specification, as originally filed, does not provide clear support for the recitation “said direct interaction between said insert and said frame comprises deformation of the insert”, as recited in new claim 27. Thus, this new recitation is deemed new matter.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 1, 2, 5-18 and 21-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yates (US 6,074,001, newly cited).

13. Regarding claims 1 and 2, Yates teaches a viscoelastic support structure with improved energy absorption comprising a frame (shell), at least one resilient filler (foam) layer, a flexible covering (fabric/film) having a contact surface for contact with a user, at least one gel insert (Fig. 8, element 54) interposed between the covering (Fig. 8, element 12) and the frame (Fig. 8, element 96), and a plurality of protuberances or recesses on the insert (col. 4, lines 10-19), wherein the insert comprises a bottom surface facing toward the frame and the frame comprises a top surface facing toward the insert, the protuberances or recesses being formed on the bottom surface of the insert such that the insert directly interacts with the frame (col. 4, lines 46-51).

However, Yates fails to specifically teach the protuberances or recesses being aligned with respect to a mid-surface line extending at least partially along the length of the structure.

It would have been an obvious matter of design choice to change the shape or size of the protuberances or recesses in Yates to where the protuberances or recesses are aligned with respect to a mid-surface line extending at least partially along the length of the structure, since such a modification would have involved a mere change in the size of the protuberances or recesses. A change in size or shape is generally recognized as being within the level of ordinary

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skill in the art, absent unexpected results. MPEP 2144.04(IV). One of ordinary skill in the art would have been motivated to change the shape or size of the protuberances or recesses in Yates to have the protuberances or recesses aligned with respect to a mid-surface line extending at least partially along the length of the structure in order to change the cushioning characteristics of the bicycle saddle. It is desirable to change the cushioning characteristics of the bicycle saddle in order to make the bicycle saddle more appealing to the user/rider as well as more comfortable to the user/rider.

Regarding claims 5-7, the protuberances in Yates, which are shown between the recesses 70 (cavities 70) in Fig. 5, have top surfaces extending along respective first lines, and the recesses (cavities 70) in Fig. 5 have bottom surfaces extending along respective second lines, wherein the first and second lines are curved (see Figure 5).

Regarding claims 8, 9 and 25, Yates teaches the presently claimed viscoelastic support structure as shown above except for the inclined surfaces of the protuberances and recesses having inclination angles being from 5° to 85° , specifically being about 45° . It would have been an obvious matter of design choice to change the shape or size of the protuberances and recesses in Yates to have inclined surfaces having inclination angles from 5° to 85° and of about 45° , since such a modification would have involved a mere change in the size of the protuberances and recesses. A change in size or shape is generally recognized as being within the level of ordinary skill in the art, absent unexpected results. MPEP 2144.04 (IV). One of ordinary skill in the art would have been motivated to change the shape or size of the protuberances and recesses in Yates to have the inclined surfaces having inclination angles from 5° to 85° and of about 45° in order to change the cushioning characteristics of the bicycle saddle. It is desirable to change the

cushioning characteristics of the bicycle saddle in order to make the saddle more appealing and comfortable to the consumer/user.

Regarding claim 10, the filler (foam) layer comprises an enlarged rear portion, a front horn portion, and a central portion, wherein at least one of the central portion and the rear portion comprise at least one through cavity (Figure 6 and col. 4, lines 39-42).

Regarding claim 11, the at least one through cavity is present in the rear portion and is positioned in an area generally corresponding to the ischial bones on the user (Fig. 6, cavities 78).

Regarding claim 12, the through cavity is present in at least one of the central portion and the rear portion, and the insert is received in the through cavity (Fig. 6, cavities 74 and 78).

Regarding claim 13, the insert (Fig. 8, insert 54) extends from the frame (96) to the flexible covering (12).

Regarding claim 14, Yates teaches the presently claimed viscoelastic support structure as shown above except for the gel material specifically being optically transparent. Yates teaches that the gel material may be of any suitable type (col. 4, lines 5-6). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the gel in Yates to be optically transparent in order to provide a suitable gel insert for a bicycle saddle and since it has been held that a change in the material would be an unpatentable modification in absence of showing unexpected results and it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice.

Regarding claim 15, the flexible covering comprises at least one essentially optically transparent portion (col. 3, lines 31-35).

Regarding claim 16, the transparent portion of the flexible covering is located above the insert (col. 3, lines 31-35).

Regarding claim 17, the transparent portion of the covering comprises a portion separate from the covering, the portion being connected to the rest of the flexible covering by suitable connection means (col. 3, lines 31-38).

Regarding claim 18, the limitation “said transparent portion is integral with the rest of said flexible covering” has been considered, but does not provide a patentable distinction over the prior art, since the limitation “is integral” is a method of production and the method of forming the product is not germane to the issue of patentability of the product itself. MPEP 2113.

Regarding claim 21, it is to be noted that it has been held that the recitation that an element is “adapted to” perform a function, i.e. adapted for deformation in a direction transverse to the direction of a stress applied to said insert, only requires the ability to so perform. In this particular case, the structure in Yates is similar to that of the present invention and is being used as a bicycle saddle, which is also similar to that of the present invention. Therefore, the structure of Yates inherently is adapted for deformation in a direction transverse to the direction of a stress applied to said insert.

Regarding claim 22, it is to be noted that it has been held that the recitation that an element is “adapted to” perform a function, i.e. adapted for deformation in a direct essentially parallel to said mid-surface line, only requires the ability to so perform. In this particular case, the structure in Yates is similar to that of the present invention and is being used as a bicycle

saddle, which is also similar to that of the present invention. Therefore, the structure of Yates inherently is adapted for deformation in a direct essentially parallel to said mid-surface line.

Regarding claim 23, it is to be noted that it has been held that the recitation that an element is “adapted to” perform a function, i.e. adapted for deformation in one or more directions thereby increasing energy dissipation by said insert, only requires the ability to so perform. In this particular case, the structure in Yates is similar to that of the present invention and is being used as a bicycle saddle, which is also similar to that of the present invention. Therefore, the structure of Yates inherently is adapted for deformation in one or more directions thereby increasing energy dissipation by said insert.

Regarding claim 24, Yates teaches the presently claimed viscoelastic support structure as shown above except for the first and second lines being straight. It would have been an obvious matter of design choice to change the shape or size of the protuberances and recesses in Yates to have the protuberances having top surfaces extending along a straight line and the recesses having bottom surfaces extending along a straight line, since such a modification would have involved a mere change in the size of the protuberances and recesses. A change in size or shape is generally recognized as being within the level of ordinary skill in the art, absent unexpected results. MPEP 2144.04 (IV). One of ordinary skill in the art would have been motivated to change the shape or size of the protuberances and recesses in Yates to have the protuberances having top surfaces extending along a straight line and the recesses having bottom surfaces extending along a straight line in order to change the cushioning characteristics of the bicycle saddle. It is desirable to change the cushioning characteristics of the bicycle saddle in order to make the saddle more appealing and comfortable to the consumer/user.

Regarding claim 26, note the frame has at least one through hole covered by a polymeric layer (col. 4, lines 45-51).

Regarding claim 27, the direct interaction between the insert and the frame comprises deformation of the insert (col. 1, lines 39-42), the deformation inherently having at least one component parallel to the direction of applied stress and at least one component transverse to the direction of the applied stress, since the structure in Yates is similar to that of the present invention and is being used as a bicycle saddle similar to that of the structure disclosed in the present application.

14. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yates (US 6,074,001) in view of Yu (US 6,739,656).

Yates teaches the presently claimed viscoelastic support structure as shown above except for protuberances or recesses being provided on the top surface of the frame facing toward the insert.

Yu teaches a base of a bicycle saddle having protuberances (supporting bars 26) provided on the top surface facing toward the elastic body for the purpose of preventing the break or detachment of the elastic body from the base and providing a comfortable feeling to the bicyclist when the bicyclist sits on the saddle (col. 1, lines 7-9 and col. 2, lines 3-5).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the top surface of the frame in Yates with protuberances as suggested by Yu in order to prevent the break or detachment of the gel insert from the frame and provide a comfortable feeling to the bicyclist when the bicyclist sits on the saddle.

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15. Claims 19 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yates (US 6,074,001) in view of Yu (US 6,739,656).

Yates teaches the presently claimed viscoelastic support structure as shown above except for the frame comprising a polymeric base material, that is essentially optically transparent, and that comprises a metal.

Yu teaches that it is well known in the art to have the base of a saddle comprise either plastic or metal in order to form a bicycle saddle which provides a comfortable feeling to the bicyclist when the bicyclist sits on the saddle (col. 1, lines 5-23).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the frame in Yates to comprise a plastic or a metal as suggested by Yu in order to form a bicycle saddle providing a comfortable feeling to the bicyclist when the bicyclist sits on the saddle.

Response to Arguments

16. Applicant's arguments with respect to claims 1-3 and 5-27 have been considered but are moot in view of the new grounds of rejection.

Conclusion

17. Applicant's amendment necessitated the new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Catherine Simone whose telephone number is (571) 272-1501. The examiner can normally be reached on Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Keith Hendricks can be reached on (571) 272-1401. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Catherine Simone/
Examiner, Art Unit 1794

/KEITH D. HENDRICKS/
Supervisory Patent Examiner, Art Unit 1794